Amendments to the Claims

The listing of claims below will replace all prior versions and listings of claims in the application.

1. (Canceled)

2. (Currently Amended) The method of claim 3, wherein said allocating further comprises loading, into memory cells accessible by the multiple graphics processing units, the ~~set of~~ three-dimensional computer graphics data corresponding to the ~~portions~~ <u>portion</u> of the scene that ~~lie~~ <u>lies</u> within the rectangular subvolumes to which the multiple graphics processing units have been assigned.

3. (Currently Amended) A method for presenting three-dimensional computer graphics images using multiple graphics processing units, comprising the steps of:

(1)   allocating, to the multiple graphics processing units, ~~a set of~~ three-dimensional computer graphics data such that said allocated ~~set of~~ three-dimensional computer graphics data corresponds to ~~substantially all~~ <u>a portion</u> of a scene that lies within rectangular subvolumes to which the multiple graphics processing units have been assigned;

~~(2)   determining a viewing position, wherein said determined viewing position determines an aspect of said allocated set of three-dimensional computer graphics data to be rendered;~~

(3) communicating said determined viewing position to the multiple graphics processing units;

(4) (2) rendering, by the multiple graphics processing units, substantially all of said allocated set of three-dimensional computer graphics data, rather than a sample of said allocated set of three-dimensional computer graphics data;

(5) (3) combining said rendered set of three-dimensional computer graphics data with image combiners, wherein outputs from the multiple graphics processing units are direct inputs to first stage image combiners and outputs from at least two of the first stage image combiners are direct inputs to a second stage image combiner, data, thereby producing a three-dimensional computer graphics image; and

(6) (4) presenting, for viewing, said combined three-dimensional computer graphics image. image;

wherein a measure of a first dimension of a first rectangular subvolume of the rectangular subvolumes is different from a measure of the first dimension of a second rectangular subvolume of the rectangular subvolumes.

4. (Currently Amended) The method of claim 3 13, wherein said combining further comprises the step of:

(5) (7) ordering said rendered set of three-dimensional computer graphics data based on locations between said determined viewing position and the rectangular subvolumes to which the multiple graphics processing units have been assigned.

5. (Currently Amended) The method of claim 3, wherein said combining further comprises the step of:

(5) blending said rendered ~~set of~~ three-dimensional computer graphics data.

6. (Canceled)

7. (Currently Amended) The method of claim ~~3~~ 14, wherein each of the at least one image ~~combiners~~ combiner has an associated frame buffer for storing said combined three-dimensional computer graphics image.

8. (Canceled)

9. (Currently Amended) A system for presenting three-dimensional computer graphics images, comprising:

memory for storing ~~a set of~~ three-dimensional computer graphics data;

~~multiple~~ at least one graphics processing ~~units~~ unit for rendering ~~substantially all~~ a portion of the ~~set of~~ three-dimensional computer graphics ~~data, rather than a sample of the set of three-dimensional computer graphics,~~ data that corresponds to ~~substantially all of a scene that lies within~~ rectangular subvolumes to which said ~~multiple~~ at least one graphics processing ~~units are~~ unit is assigned;

a bus for communicating a viewing position to each of said ~~multiple~~ at least one graphics processing ~~units, wherein the viewing position determines an aspect of the set of three-dimensional computer graphics data to be rendered;~~ unit; and

at least one image ~~combiners~~ combiner for combining the ~~set of~~ three-dimensional computer graphics data rendered by said ~~multiple~~ at least one graphics processing ~~units~~ unit to produce a three-dimensional computer graphics ~~image, wherein outputs from the multiple graphics processing units are direct inputs to first-stage image combiners and outputs from at least two of the first stage image combiners are direct inputs to a second stage image combiner.~~ image;

wherein a measure of a first dimension of a first rectangular subvolume of said rectangular subvolumes is different from a measure of the first dimension of a second rectangular subvolume of said rectangular subvolumes.

10. (Currently Amended) The system of claim 9, wherein said memory comprises memory cells such that each of said memory cells is accessible by only one of ~~the multiple~~ said at least one graphics processing ~~units.~~ unit.

11. (Canceled)

12. (Canceled)

13. (New) The method of claim 3, further comprising, before step (2), the steps of:

(5)   determining a viewing position; and

(6)   communicating said determined viewing position to the multiple graphics processing units.

14. (New) The method of claim 3, wherein said combining is performed by at least one image combiner.

15. (New) The method of claim 14, wherein an output of the at least one image combiner is an input for another image combiner.

16. (New) The system of claim 9, wherein at least one of said at least one image combiner is configured to receive an output of at least one other of said at least one image combiner.